

***Remarks***

Reconsideration of this Application is respectfully requested. Claims 1-37 and 41-53 are pending in the application, with 1, 24, and 41 being the independent claims. Claims 1-37 and 41 are sought to be amended. Amendment of claims 1-37 and 41 does not add new matter, further clarifies the claims, and improves readability. This amendment is supported by the specification at least in figures 1 and 2 as well as paragraphs [0005], [0007], [0008], [0027] - [0036], and [0039] - [0040]. Applicants respectfully request the amendment be entered by the Examiner. Applicants reserve the right to prosecute similar or broader claims, with respect to the amended and cancelled claims, in the future.

Filed concurrently herewith in the captioned application is a Request for Continued Examination (RCE). Prior to examination of the RCE on the merits, please amend the application as requested herein.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 103***

On page 2 of the Office Action, claims 1, 13-18, 23-24, and 35-37 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent Publication No. 2003/0048781 to Pierson (herein "Pierson") in view of U.S. Patent No. 6,438,717 to Butler *et al* (herein "Butler") and U.S. Patent No. 4,697,201 to Rich, III *et al* (herein "Rich"). Additionally, on page 12 of the Office Action, claims 41-42, 44, and 51 stand

rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierson in view of Butler and Rich, further in view of U.S. Patent No. 6,081,570 to Ghuman *et al* (herein "Ghuman"). Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

First, neither Pierson, Butler, nor Rich, alone or in the allegedly obvious combination, teach, suggest, or disclose all features of pending independent claims 1, 24, and 41. For example, neither Pierson, Butler, nor Rich, alone or in the allegedly obvious combination, teach, suggest, or disclose "*an integrated circuit comprising: a substrate; a plurality of data ports disposed on the substrate; and an integrated packet bit error rate tester disposed on the substrate for testing a channel coupled to one of the plurality of data ports*" as recited in independent claims 1 and 24. *See*, Applicants' claims 1, 24 (Emphasis added). In a further example, neither Pierson, Butler, nor Rich, alone or in the allegedly obvious combination, teach, suggest, or disclose "loading the test packet into *the transmitter memory in the integrated circuit*," "capturing a received test packet from *the channel coupled to the integrated circuit*," or "a channel coupled to a *transmitter memory that is part of an integrated circuit deposited on a substrate* and to a *receiver that is part of the integrated circuit deposited on the substrate*" as recited in independent claim 41. *See*, Applicants' claim 41 (Emphasis added).

Specifically, Pierson is directed toward transfer of voice packets over a data network via an Asynchronous Transfer Mode (ATM) protocol and therefore *does not describe an integrated circuit* as claimed by the Applicants. *See*, Pierson, Abstract Ins. 1-2; paras. [0003], [0087]. As shown in Pierson's figure 1, Pierson describes only *discrete port cards* 100, 230 and *does not describe an integrated circuit having a*

*plurality of data ports that are integrated with an integrated packet bit error rate tester* on a single common substrate. *See*, Pierson, fig. 1. Further, Butler does not provide the missing feature from Pierson as described above. Butler is cited in the Office Action for "teaching testing in the actual operational mode" and "reading respective channels per register." *See*, Office Action, page 3. Thus, Butler does not provide the missing feature, nor does the Office Action suggest this. Rich does not overcome these deficiencies of Pierson and Butler. Therefore, because neither Pierson, Butler, nor Rich, alone or in the allegedly obvious combination, teach, suggest, or disclose all of the recited claim features of pending independent claims 1, 24, and 41 at least for the reasons herein, a *prima facie* case of obviousness has not been established. Accordingly, Applicants respectfully request this rejection be removed and that independent claims 1, 24, and 41 be passed to allowance.

Furthermore, dependent claims 13-18, 23, 35-37, 42, 44, and 51, which depend upon their respective independent claims 1, 24, and 41 are allowable for at least being dependent from an allowable independent claim, in addition to their own respective patentable features. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

Second, a *prima facie* case of obviousness of claims 1, 13-18, 23-24, 35-37, 41-42, 44, and 51 has not been established because *the Office Action does not provide explicit analysis* of motivation to modify or combine Pierson, Butler, and Rich to achieve Applicants' invention. The United States Supreme Court, in *KSR International vs. Teleflex, Inc.*, 127 S. Ct. 1727 (2007), ruled on the requirements for obviousness analysis under 35 U.S.C. 103(a). The Court noted that the analysis supporting a rejection

under 35 U.S.C. 103(a) should be made explicit, and that it was important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the cited references in the manner claimed. The Court specifically stated:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was *an apparent reason* to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, *this analysis should be made explicit*. (KSR, 127 S. Ct. at 1740-41, *citing In Re Kahn*, 441 F. 3d 977, 988 (CA, Fed. 2006) ([R]ejections on obviousness grounds *cannot be sustained by mere conclusory* statements, instead, there must be some articulated reasoning with some rational underpinning to support a legal conclusion of obviousness").

The Office Action does not provide an explicit analysis or reasoning as to why the references would be combined by a person ordinary skill in the art. *See, KSR v. Teleflex*. Instead, the Office Action *incorrectly assumes* that simply because Pierson, Butler, and Rich *might possibly function* in combination, then motivation to combine to improve performance or cost is implicitly present. The Office Action makes the following assertion:

[O]ne of ordinary skill in the art would have recognized that using the transmit and receive circuit deposited on a substrate would provide the opportunity to improve performance and cost. (Office Action, pp. 3, 14).

Applicants contend that this assertion does not provide sufficient *explicit reasoning* as to why a person of ordinary skill in the art would combine Pierson, Butler, and Rich, as required by *Teleflex*.

Pierson, Butler, and Rich address different problems in different types of technology and are directed to solving a problem specific to their respective type of

technology. As stated above, *Pierson is directed toward transfer of voice packets over a data network via an asynchronous ATM protocol. See, Pierson, Abstract Ins. 1-2; paras. [0003], [0087].* Further, Pierson describes specific problems relating to reducing a switch matrix processing load and numbering data packets for use in a data switching matrix. *See, Pierson, para. [0060]. Butler is directed to a different problem of detecting failure of a high speed synchronous serial data link of substantial length between network devices. See, Butler, col. 1, Ins. 5-7. Rich is not even directed toward data communications equipment technology, but instead describes radar technology.* The problem Rich addresses is optimizing a size of a phased array radar transmitter/receiver module. *See, Rich, col. 1, Ins. 26-35.* Thus, Pierson, Butler, and Rich are each directed to solving different problems in different types of technology and are directed to solving a problem specific to their respective type of technology.

Based on the foregoing, the nature of the problems solved by Pierson, Butler, and Rich would not have motivated a person of skill in the art to combine Pierson, Butler, and Rich to achieve Applicants' claimed invention. Thus, *no suggestion or motivation to combine the references is explicitly present in Pierson, Butler, and Rich, nor does the Office Action provide the sufficient **explicit reasoning** to make this combination*, as is required by *Teleflex*. In addition, none of the other references cited in the Office Action, including Ghuman, explicitly suggests modifying or combining Pierson, Butler, and Rich.

Furthermore, the conclusory statements of the Office Action (such as that cited above) do not provide sufficient objective evidence of a suggestion of the desirability of doing what Applicants have claimed. As discussed in *Teleflex*, **conclusory statements**

are insufficient to support finding of obviousness. Therefore, *explicit reasoning* has not been provided as is required by *Teleflex* and a *prima facie* case of obviousness for independent claims 1, 24, and 41 has not been established. Accordingly, Applicants respectfully request this rejection be removed and that independent claims 1, 24, and 41 be passed to allowance.

Furthermore, dependent claims 13-18, 23, 35-37, 42, 44, and 51, which depend upon their respective independent claims 1, 24, and 41 are allowable for at least being dependent from an allowable independent claim, in addition to their own respective patentable features. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 5 of the Office Action, claims 2-3 and 29-30 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler and Rich, further in view of U.S. Patent No. 6,140,956 to Hillman *et al* (herein "Hillman"). Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 2-3 and 29-30 depend from their respective independent claims 1 and 24. Hillman does not cure the deficiencies mentioned above for Pierson in view of Butler and Rich. Accordingly, claims 2-3 and 29-30 are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 6 of the Office Action, claims 4-5, 19-22, and 25-28 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler and

Rich, and further in view of U.S. Patent Publication No. 2002/0054569 to Morikawa *et al* (herein "Morikawa"). Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 4-5, 19-22, and 25-28, which depend upon their respective independent claims 1 and 24, are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Morikawa does not cure the deficiencies of Pierson in view of Butler and Rich. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 8 of the Office Action, claims 6-7 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler and Rich, further in view of U.S. Patent No. 5,726,991 to Chen *et al* (herein "Chen"). Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 6-7, which depend upon independent claim 1, are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Chen does not cure the deficiencies of Pierson in view of Butler and Rich. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 9 of the Office Action, claim 8 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler and Rich, further in view of U.S. Patent Publication No. 2001/0012288 to Yu *et al* (herein "Yu"). Applicants

traverse this rejection and respectfully request this rejection be removed and this claim be passed to allowance.

Dependent claim 8, which depends upon independent claim 1, is allowable for at least being dependent from an allowable independent claim, in addition to its own respective features. Yu does not cure the deficiencies of Pierson in view of Butler and Rich. Accordingly, Applicants respectfully request this rejection be removed and that this claim be passed to allowance.

On page 10 of the Office Action, claims 9-12 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler and Rich, further in view of U.S. Patent Publication No. 2003/0009307 to Mejia *et al* (herein "Mejia"). Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 9-12, which depend upon independent claim 1, are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Mejia does not cure the deficiencies of Pierson in view of Butler and Rich. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 11 of the Office Action, claims 31-34 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler, Rich, Hillman, and Mejia. Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 31-34, which depend upon independent claim 24, are allowable for at least being dependent from an allowable independent claim, in addition



to their own respective features. Mejia and Hillman do not cure the deficiencies of Pierson in view of Butler and Rich. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 14 of the Office Action, claims 43 and 45 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler, Ghuman, Rich, and Hillman. Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 43 and 45, which depend upon independent claim 41, are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Hillman does not cure the deficiencies of Pierson in view of Butler, Rich, and Ghuman. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 14 of the Office Action, claims 46-47 and 52-53 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler, Rich, Ghuman, and Morikawa. Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 46-47 and 52-53, which depend upon independent claim 41, are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Morikawa does not cure the deficiencies of Pierson in view of Butler, Rich, and Ghuman. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 16 of the Office Action, claims 48-49 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler, Rich, Ghuman,

and Chen. Applicants traverse this rejection and respectfully request this rejection be removed and these claims be passed to allowance.

Dependent claims 48-49, which depend upon independent claim 41, are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Chen does not cure the deficiencies of Pierson in view of Butler, Rich, and Ghuman. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

On page 16 of the Office Action, claim 50 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pierson in view of Butler, Rich, Ghuman, and Yu. Applicants traverse this rejection and respectfully request this rejection be removed and this claim be passed to allowance.

Dependent claim 50, which depends upon independent claim 41, is allowable for at least being dependent from an allowable independent claim, in addition to its own respective features. Yu does not cure the deficiencies of Pierson in view of Butler, Rich and Ghuman. Accordingly, Applicants respectfully request this rejection be removed and that this claim be passed to allowance.

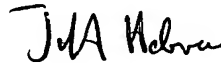
***Conclusion***

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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